

**A FERROELECTRIC CAPACITOR HAVING A SUBSTANTIALLY
PLANAR DIELECTRIC LAYER AND A METHOD OF MANUFACTURE THEREFOR**

ABSTRACT OF THE DISCLOSURE

The present invention provides a ferroelectric capacitor, a method of manufacture therefor, and a method of manufacturing a ferroelectric random access memory (FeRAM) device. The ferroelectric capacitor (100), among other elements, includes a substantially planar ferroelectric dielectric layer (165) located over a first electrode layer (160), wherein the substantially planar ferroelectric dielectric layer (165) has an average surface roughness of less than about 4 nm. The ferroelectric capacitor (100) further includes a second electrode layer (170) located over the substantially planar ferroelectric dielectric layer (165).